



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/529,955

01/09/2006

Thomas E. Rajewski

3187-01

5531

26645

7590

12/08/2009

THE LUBRIZOL CORPORATION
ATTN: DOCKET CLERK, PATENT DEPT.
29400 LAKELAND BLVD.
WICKLIFFE, OH 44092

EXAMINER

GOLOBOY, JAMES C

ART UNIT

PAPER NUMBER

1797

MAIL DATE

DELIVERY MODE

12/08/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/529,955	Applicant(s) RAJEWSKI ET AL.	
	Examiner James Goloboy	Art Unit 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 July 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's amendments filed 7/29/09 overcome the rejections set forth in the office action mailed 3/5/09. New grounds of rejection necessitated by the amendments are set forth below.

Claim Rejections - 35 USC § 103

2. Claims 1, 13, and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kitahara (U.S. Pat. No. 5,723,417).

In column 2 lines 25-48 Kitahara discloses a lubricating composition comprising an oil-soluble polyester with an average molecular weight of 10,000 to 1,000,000, encompassing the range recited in amended claims 1, 13, and 18-19. In column 6 lines 36-43 Kitahara discloses that the most preferable molecular weight range is from 40,000 to 200,000, overlapping the claimed range. In column 8 lines 31-34 Kitahara teaches that the polyester is preferably present in an amount of 0.5 to 20% by weight of the composition, overlapping the claimed range. In column 12 line 14 Kitahara discloses that the composition can be used as a compressor oil.

The differences between Kitahara and the currently presented claims are:

- i) The ranges of Kitahara overlap or encompass the claimed ranges.
- ii) Kitahara does not explicitly disclose a gas compressor.

With respect to i), see MPEP 2144.05(I): "In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a prima facie case of obviousness exists. *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976);"

Art Unit: 1797

With respect to ii), as Kitahara discloses that the lubricating composition comprising the polymeric additive can be used as a compressor oil, it would have been obvious to one of ordinary skill in the art to use the oil to lubricate a gas compressor.

3. Claims 1-10, 13-14, and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaneko (U.S. Pat. No. 6,322,719) in view of Kitahara.

In column 1 lines 8-22 Kaneko discloses a refrigerating oil composition, and in column 1 lines 24-28 and the examples teaches that the composition is used in a gas compressor, as recited in claims 1 and 13. In column 1 lines 8-15 Kaneko teaches that the composition can be used in conjunction with hydrofluorocarbon or ammonia coolants, meeting the limitations of claims 2, 7, 14, and 17. In column 8 lines 46-50 Kaneko discloses that the base oil can be a polyalkylene glycol, as recited in claims 3 and 8, or a polyhydric alcohol ester which is a carboxylate ester also as recited in claims 3 and 8. In column 24 lines 24-26 Kaneko teaches that the base oil can also be a polyalphaolefin or alkylbenzene, meeting the limitations of claims 5 and 10. Kaneko does not disclose the inclusion of the claimed polymer in the composition.

The discussion of Kitahara in paragraph 2 above is incorporated here by reference. Kitahara discloses a compressor and refrigerator oil composition comprising a polymer meeting the limitations of the polymer of claims 1 and 13. The polymer additionally meets the limitations of claims 4, 6, 9, and 16, as all of the repeating units can contain oxygen.

Art Unit: 1797

It would have been obvious to one of ordinary skill in the art to include the polymer of Kitahara in the lubricating composition of Kaneko, as Kitahara teaches in column 1 lines 12-19 that it imparts improved properties to lubricating oils, and also teaches that it can be used in compressor and refrigerating oils.

4. Claims 1-10, 13-14, and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaneko in view of Sakai (U.S. Pat. No. 5,622,924).

The discussion of Kaneko in paragraph 3 above is incorporated here by reference. Kaneko discloses a lubricating composition used in a gas compressor but not comprising the claimed polymer.

Sakai, in column 1 lines 6-11, discloses a lubricating oil and a viscosity index improver. In column 6 lines 45-49 Sakai discloses that the oil can be used as a compressor oil. In column 3 lines 3-5 Sakai discloses that the viscosity index improver is a polymer, and in column 4 lines 48-50 discloses that the molecular weight of the polymer is preferably from 30,000 to 600,000, encompassing the claimed ranges. In column 6 lines 14-16 Sakai teaches that the concentration of the viscosity index improver in the composition is preferably 0.5 to 30% by weight, encompassing the claimed ranges. In column 3 lines 3-8 Sakai discloses that the polymer comprises at least 70% by weight of alkyl methacrylate units, meeting the limitations of claims 4, 6, 9, and 16.

It would have been obvious to one of ordinary skill in the art to include the

Art Unit: 1797

polymer of Sakai in the composition of Kaneko as Sakai teaches that the polymer is suitable for use as a viscosity index improver in a compressor oil.

5. Claims 1-3, 5, 7-8, 10-15, and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaneko in view of Yagishita (U.S. Pat. No. 6,322,719).

The discussion of Kaneko in paragraph 3 above is incorporated here by reference. Kaneko discloses a lubricating composition used in a gas compressor but not comprising the claimed polymer. Kaneko discloses in column 24 lines 46-47 that the composition can comprise further known additives.

Yagishita, in column 16 lines 24-56, discloses viscosity index improvers for lubricating compositions, including ethylene-alphaolefin copolymers, which meet the limitations of claims 11 and 15. In column 16 lines 54-56 Yagishita teaches that the molecular weight of the copolymers is preferably from 1,000 to 200,000, overlapping the claimed range. In column 18 lines 22-27 Yagishita discloses that compressor oils and refrigerator oils, such as those of Kaneko, are among the lubricating oils that can contain the polymeric viscosity index improver. The incorporation of the viscosity index improver of Yagishita in the composition and refrigerator system of Kaneko meets the limitations of claims 1-3, 5, 7-8, 10-15, and 17-19

It would have been obvious to one of ordinary skill in the art to include the viscosity index improver of Yagishita in the composition of Kaneko as Yagishita teaches that it is suitable for use in a compressor or refrigerator oil.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Goloboy whose telephone number is (571)272-2476. The examiner can normally be reached on M-F 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on 571-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1797

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JCG

/Glenn A Caldarola/
Acting SPE of Art Unit 1797